

1           1.       A system for installing computer software components on a client device for  
2 enabling connectivity to a host system by at least one of several different hardware devices,  
3 comprising:

4           a receiving module that is structured and arranged to receive a connectivity  
5 component that enables connectivity to a host system by at least one of several different  
6 hardware devices;

7           a detection module that is structured and arranged to detect whether installation of the  
8 connectivity component is needed to enable connectivity between the client device and the  
9 host system using a selected hardware device; and

10          an installation module that is structured and arranged to install the connectivity  
11 component when the connectivity component is needed to enable connectivity between the  
12 client device and the host system using the selected hardware device.

1           2.       The system of claim 1 wherein the receiving module is structured and  
2 arranged to receive the connectivity component from a local source.

1           3.       The system of claim 2 wherein the receiving module is structured and  
2 arranged to receive multiple connectivity components from the local source.

1           4.       The system of claim 3 wherein the detection module is structured and  
2 arranged to detect whether installation of at least one of the received connectivity  
3 components is needed to enable connectivity between the client device and the host system  
4 using the selected hardware device.

1           5.       The system of claim 1 wherein the receiving module is structured and  
2 arranged to receive the connectivity component from a remote source.

1           6.       The system of claim 5 wherein the receiving module is structured and  
2 arranged to receive multiple connectivity components from the remote source.

1           7.       The system of claim 6 wherein the detection module is structured and  
2 arranged to detect whether installation of at least one of the received connectivity  
3 components is needed to enable connectivity between the client device and the host system  
4 using the selected hardware device.

1           8.       The system of claim 1 wherein the connectivity component is capable of  
2     interfacing a device driver to enable communications between computer software at the client  
3     device and the host system using a hardware device associated with the device driver.

1           9.       The system of claim 1 wherein the connectivity component is capable of  
2     interfacing directly with the selected hardware device to enable connectivity between the  
3     client device and the host system using the selected hardware device.

1           10.      The system of claim 1 wherein the connectivity component includes computer  
2     software that interfaces with a driver for a hardware device that is used to connect to the host  
3     system.

1           11.      The system of claim 1 wherein the connectivity component includes a  
2     broadband connectivity component to enable connectivity to the host system using a  
3     broadband communication device.

1           12.      The system of claim 11 wherein the connectivity component includes a DSL  
2     connectivity component to enable connectivity to the host system using a DSL modem.

1           13.      The system of claim 11 wherein the connectivity component includes a cable  
2     connectivity component to enable connectivity to the host system using a cable modem.

1           14.      The system of claim 11 wherein the connectivity component includes a  
2     satellite connectivity component to enable connectivity to the host system using a satellite  
3     modem.

1           15.      The system of claim 1 wherein:  
2                   the detection module is structured and arranged to detect whether the installation of  
3     the connectivity component is needed to enable connectivity between the client device and  
4     the host system in response to an input received from a user of the client device requesting  
5     communications using the selected hardware device; and  
6                   the installation module is structured and arranged to install the connectivity  
7     component when the connectivity component is needed based on the input from the user of  
8     the client device.

1           16.     The system of claim 15 wherein the input from the user of the client device  
2 includes a request to change connectivity to the host system from a low-bandwidth  
3 connection type to a broadband connection type.

1           17.     The system of claim 1 wherein the installation module installs a list of  
2 programs needed to install the connectivity component.

1           18.     The system of claim 17 wherein the list of programs includes a sequential list  
2 of programs needed to install the connectivity component such that only one reboot of the  
3 client device is necessary to accomplish installation using the sequential list of programs.

1           19.     The system of claim 1 wherein the detection module further comprises an  
2 automatic hardware device detector that is structured and arranged to automatically detect a  
3 hardware device and determine the connectivity component needed to enable connectivity to  
4 the host system associated with the hardware device detected.

1           20.     The system of claim 1 wherein the detection module is structured and  
2 arranged to search at least one storage medium on the client device for the connectivity  
3 component when the detection module detects that the installation of the connectivity  
4 component is needed.

1           21.     The system of claim 1 wherein:  
2           the detection module is structured and arranged to detect the presence of the  
3 connectivity component at the client device, and  
4           the receiving module is structured and arranged to receive the connectivity  
5 component from a remote server for installation on the client device when the detection  
6 module does not detect the connectivity component on the client device.

1           22.     The system of claim 1 wherein the receiving module is structured and  
2 arranged to copy at least one of the connectivity components to the client device from a disk  
3 and store the connectivity component in a dormant state on the client device.

1           23.     The system of claim 1 wherein the receiving module, the detection module,  
2     and the installation module are structured and arranged to perform automatically without user  
3     intervention to receive, detect, and install the connectivity component to enable connectivity  
4     to the host system using the selected hardware device.

1           24.     The system of claim 1 wherein the connectivity component received includes  
2     an updated version of a connectivity component stored on the client device before the  
3     connectivity component is installed by the installation module.

1           25.     The system of claim 24 wherein the detection module is structured and  
2     arranged to detect whether installation of the connectivity component is needed on the client  
3     device by comparing a version of the updated connectivity component received with a  
4     version of the connectivity component stored on the client device.

1           26.     The system of claim 1 wherein:  
2             the receiving module is structured and arranged to receive version information from a  
3     remote server associated with a connectivity component;

4             the detection module is structured and arranged to detect whether installation of the  
5     connectivity component is needed on the client device, and to determine a version of the  
6     connectivity component to install by comparing the version information received from the  
7     remote server with version information associated with the connectivity component already  
8     received by the receiving module when installation of the connectivity component is needed;  
9     and

10           the installation module is structured and arranged to install the connectivity  
11     component stored on the client device when the detection module determines the version  
12     information associated with the stored connectivity component is correct when compared  
13     against the version information received from the remote server.

1           27.     The system of claim 26 wherein:  
2           the receiving module is structured and arranged to receive an updated connectivity  
3     component from the remote server when the detection module determines that the version  
4     information associated with the connectivity component stored on the client device is not  
5     correct when compared against the version information received from the remote server; and  
6           the installation module is structured and arranged to install the updated connectivity  
7     component received from the remote server.

1           28.     The system of claim 1 wherein:  
2           the detection module is structured and arranged to detect a new hardware device and,  
3     based on detecting the new hardware device, to detect whether a connectivity component has  
4     been received that is needed to enable connectivity between the client device and the host  
5     system using the new hardware device; and  
6           the installation module is structured and arranged to install the connectivity  
7     component when the connectivity component is detected to have been received.

1           29.     The system of claim 28 wherein:  
2           the receiving module is structured and arranged to receive an updated connectivity  
3     component from a remote server when the detection module does not detect the connectivity  
4     component that is needed to enable connectivity between the client device and the host  
5     system using the new hardware device; and  
6           the installation module is structured and arranged to install the updated connectivity  
7     component received from the remote server.

1           30.     The system of claim 1 wherein:  
2           the receiving module is structured and arranged to include a host system receiving  
3           module that is structured and arranged to receive a request to send a connectivity component  
4           to a local client device; and

5           the installation module is structured and arranged to include a host system installation  
6           module that is structured and arranged to send the connectivity component to the local client  
7           device for installation on the local client device in response to the request.

1           31.     The system of claim 30 wherein the detection module is structured and  
2           arranged to include a host system detection module that is structured and arranged to  
3           determine a version of the connectivity component needed for installation on the local client  
4           device.

1           32.     A method for installing computer software components on a client device for  
2           enabling connectivity to a host system by at least one of several different hardware devices,  
3           the method comprising:

4           receiving a connectivity component that enables connectivity to a host system by at  
5           least one of several different hardware devices;

6           detecting whether installation of the connectivity component is needed to enable  
7           connectivity between the client device and the host system using a selected hardware device;  
8           and

9           installing the connectivity component when connectivity component is needed to  
10          enable connectivity between the client device and the host system using the selected  
11          hardware device.

1           33.     The method as in claim 32 wherein receiving the connectivity component  
2           includes receiving the connectivity component from a local source.

1           34.     The method as in claim 33 wherein receiving the connectivity component  
2           from the local source includes receiving multiple connectivity components from the local  
3           source.

1           35.     The method as in claim 34 wherein detecting whether installation of the  
2     connectivity component is needed includes detecting whether installation of at least one of  
3     the received connectivity components is needed to enable connectivity between the client  
4     device and the host system using the selected hardware device.

1           36.     The method as in claim 32 wherein receiving the connectivity component  
2     includes receiving the connectivity component from a remote source.

1           37.     The method as in claim 36 wherein receiving the connectivity component  
2     from the remote source includes receiving multiple connectivity components from the remote  
3     source.

1           38.     The method as in claim 37 wherein detecting whether installation of the  
2     connectivity component is needed includes detecting whether installation of at least one of  
3     the received connectivity components is needed to enable connectivity between the client  
4     device and the host system using the selected hardware device.

1           39.     The method as in claim 32 wherein the connectivity component is capable of  
2     interfacing a device driver to enable communications between computer software at the client  
3     device and the host system using a hardware device associated with the device driver.

1           40.     The method as in claim 32 wherein the connectivity component is capable of  
2     interfacing directly with the selected hardware device to enable connectivity between the  
3     client device and the host system using the selected hardware device.

1           41.     The method as in claim 32 wherein the connectivity component includes  
2     computer software that interfaces with a driver for a hardware device that is used to connect  
3     to the host system.

1           42.     The method as in claim 32 wherein the connectivity component includes a  
2     broadband connectivity component to enable connectivity to the host system using a  
3     broadband communication device.

1           43.     The method as in claim 32 wherein:

2 detecting whether installation of the connectivity component is necessary includes  
3 detecting whether the installation of the connectivity component is needed to enable  
4 connectivity between the client device and the host system in response to an input received  
5 from a user of the client device requesting communications using the selected hardware  
6 device; and

7 installing the connectivity component includes installing the connectivity component  
8 when the connectivity component is needed based on the input from the user of the client  
9 device.

1 44. The method as in claim 43 wherein the input from the user of the client device  
2 includes a request to change connectivity to the host system from a low-bandwidth  
3 connection type to a broadband connection type.

1 45. The method as in claim 32 wherein installing the connectivity component  
2 includes installing a list of programs needed to install the connectivity component.

1 46. The method as in claim 45 wherein the list of programs includes a sequential  
2 list of programs needed to install the connectivity component such that only one reboot of the  
3 client device is necessary to accomplish installation using the sequential list of programs.

1 47. The method as in claim 32 wherein detecting whether installation of the  
2 connectivity component is necessary further comprises automatically detecting a hardware  
3 device and determining the connectivity component needed to enable connectivity to the host  
4 system associated with the hardware device detected.



1           48.     The method as in claim 32 wherein detecting whether installation of the  
2     connectivity component is necessary includes searching at least one storage medium on the  
3     client device for the connectivity component when the installation of the connectivity  
4     component is detected to be needed.

1           49.     The method as in claim 32 wherein:  
2             detecting whether installation of the connectivity component is necessary includes  
3     detecting the presence of the connectivity component at the client device, and  
4             receiving the connectivity component includes receiving the connectivity component  
5     from a remote server for installation on the client device when the connectivity component is  
6     not detected on the client device.

1           50.     The method as in claim 32 wherein receiving the connectivity component  
2     includes copying at least one of the connectivity components to the client device from a disk  
3     and storing the connectivity component in a dormant state on the client device.

1           51.     The method as in claim 32 wherein receiving the connectivity component,  
2     detecting whether installation of the connectivity component is necessary, and installing the  
3     connectivity component includes automatically without user intervention receiving,  
4     detecting, and installing the connectivity component to enable connectivity to the host system  
5     using the selected hardware device.

1           52.     The method as in claim 32 wherein the connectivity component received  
2     includes an updated version of a connectivity component stored on the client device before  
3     the connectivity component is installed by the installation module.

1           53.     The method as in claim 52 wherein detecting whether installation of the  
2     connectivity component is needed includes comparing a version of the updated connectivity  
3     component received with a version of the connectivity component stored on the client device.

1           54.     The method as in claim 32 wherein:  
2           receiving the connectivity component includes receiving version information from a  
3 remote server associated with a connectivity component;  
4           detecting whether installation of the connectivity component is needed includes  
5 detecting whether installation of the connectivity component is needed on the client device,  
6 and determining a version of the connectivity component to install by comparing the version  
7 information received from the remote server with version information associated with the  
8 connectivity component already received when installation of the connectivity component is  
9 needed; and  
10          installing the connectivity component includes installing the connectivity component  
11 stored on the client device when the version information associated with the stored  
12 connectivity component is determined to be correct when compared against the version  
13 information received from the remote server.

1           55.     The method as in claim 54 wherein:  
2           receiving the connectivity component includes receiving an updated connectivity  
3 component from the remote server when the version information associated with the  
4 connectivity component stored on the client device is determined not to be correct when  
5 compared against the version information received from the remote server; and  
6           installing the connectivity component includes installing the updated connectivity  
7 component received from the remote server.

1           56.     The method as in claim 32 wherein:  
2           detecting whether installation of the connectivity component is necessary includes  
3 detecting a new hardware device and, based on detecting the new hardware device, detecting  
4 whether a connectivity component has been received that is needed to enable connectivity  
5 between the client device and the host system using the new hardware device; and  
6           installing the connectivity component includes installing the connectivity component  
7 when the connectivity component is detected to have been received.

1           57.     The method as in claim 56 wherein:  
2           receiving the connectivity component includes receiving an updated connectivity  
3 component from a remote server when the connectivity component that is needed to enable

connectivity between the client device and the host system using the new hardware device is not detected; and

installing the connectivity component includes installing the updated connectivity component received from the remote server.

58. The method as in claim 32 wherein:

receiving the connectivity component includes using a host system to receive a request to send a connectivity component to a local client device; and

installing the connectivity component includes using the host system to send the connectivity component to the local client device for installation on the local client device in response to the request.

59. The method as in claim 58 wherein detecting whether installation of the

connectivity component is necessary includes using the host system to determine a version of the connectivity component to install on the local client device.

60. A computer program for installing computer software components on a client device for enabling connectivity to a host system by at least one of several different hardware devices, the computer program being stored on a computer readable medium or a propagated signal and comprising:

a receiving code segment that causes the computer to receive a connectivity component that enables connectivity to a host system by at least one of several different hardware devices;

a detection code segment that causes the computer to detect whether installation of the connectivity component is needed to enable connectivity between the client device and the host system using a selected hardware device; and

an installation code segment that causes the computer to install the connectivity component when the connectivity component is needed to enable connectivity between the client device and the host system using the selected hardware device.

61. The computer program of claim 60 wherein the receiving code segment

causes the computer to receive the connectivity component from a local source.

1           62.     The computer program of claim 61 wherein the receiving code segment  
2 causes the computer to receive multiple connectivity components from the local source.

1           63.     The computer program of claim 62 wherein the detection code segment causes  
2 the computer to detect whether installation of at least one of the received connectivity  
3 components is needed to enable connectivity between the client device and the host system  
4 using the selected hardware device.

1           64.     The computer program of claim 60 wherein the receiving code segment  
2 causes the computer to receive the connectivity component from a remote source.

1           65.     The computer program of claim 64 wherein the receiving code segment  
2 causes the computer to receive multiple connectivity components from the remote source.

1           66.     The computer program of claim 65 wherein the detection code segment causes  
2 the computer to detect whether installation of at least one of the received connectivity  
3 components is needed to enable connectivity between the client device and the host system  
4 using the selected hardware device.

1           67.     The computer program of claim 60 wherein the connectivity component is  
2 capable of interfacing a device driver to enable communications between computer software  
3 at the client device and the host system using a hardware device associated with the device  
4 driver.

1           68.     The computer program of claim 60 wherein the connectivity component is  
2 capable of interfacing directly with the selected hardware device to enable connectivity  
3 between the client device and the host system using the selected hardware device.

1           69.     The computer program of claim 60 wherein the connectivity component  
2 includes computer software that interfaces with a driver for a hardware device that is used to  
3 connect to the host system.

1           70.     The computer program of claim 60 wherein the connectivity component  
2 includes a broadband connectivity component to enable connectivity to the host system using  
3 a broadband communication device.

1           71.     The computer program of claim 60 wherein:  
2           the detection code segment causes the computer to detect whether the installation of  
3           the connectivity component is needed to enable connectivity between the client device and  
4           the host system in response to an input received from a user of the client device requesting  
5           communications using the selected hardware device; and  
6           the installation code segment causes the computer to install the connectivity  
7           component when the connectivity component is needed based on the input from the user of  
8           the client device.

1           72.     The computer program of claim 71 wherein the input from the user of the  
2           client device includes a request to change connectivity to the host system from a low-  
3           bandwidth connection type to a broadband connection type.

1           73.     The computer program of claim 60 wherein the installation code segment  
2           causes the computer to install a list of programs needed to install the connectivity  
3           component.

1           74.     The computer program of claim 73 wherein the list of programs includes a  
2           sequential list of programs needed to install the connectivity component such that only one  
3           reboot of the client device is necessary to accomplish installation using the sequential list of  
4           programs.

1           75.     The computer program of claim 60 wherein the detection code segment  
2           further comprises an automatic hardware device detector code segment that causes the  
3           computer to automatically detect a hardware device and determine the connectivity  
4           component needed to enable connectivity to the host system associated with the hardware  
5           device detected.

1           76.     The computer program of claim 60 wherein the detection code segment causes  
2           the computer to search at least one storage medium on the client device for the connectivity  
3           component when the detection code segment detects that the installation of the connectivity  
4           component is needed.

1           77.     The computer program of claim 60 wherein:  
2           the detection code segment causes the computer to detect the presence of the  
3           connectivity component at the client device, and  
4           the receiving code segment causes the computer to receive the connectivity  
5           component from a remote server for installation on the client device when the detection code  
6           segment does not detect the connectivity component on the client device.

1           78.     The computer program of claim 60 wherein the receiving code segment  
2           causes the computer to copy at least one of the connectivity components to the client device  
3           from a disk and store the connectivity component in a dormant state on the client device.

1           79.     The computer program of claim 60 wherein the receiving code segment, the  
2           detection code segment, and the installation code segment cause the computer to perform  
3           automatically without user intervention to receive, detect, and install the connectivity  
4           component to enable connectivity to the host system using the selected hardware device.

1           80.     The computer program of claim 60 wherein the connectivity component  
2           received includes an updated version of a connectivity component stored on the client device  
3           before the connectivity component is installed by the installation code segment.

1           81.     The computer program of claim 80 wherein the detection code segment causes  
2           the computer to detect whether installation of the connectivity component is needed on the  
3           client device by comparing a version of the updated connectivity component received with a  
4           version of the connectivity component stored on the client device.

1           82.     The computer program of claim 60 wherein:  
2           the receiving code segment causes the computer to receive version information from a  
3 remote server associated with a connectivity component;  
4           the detection code segment causes the computer to detect whether installation of the  
5 connectivity component is needed on the client device, and to determine a version of the  
6 connectivity component to install by comparing the version information received from the  
7 remote server with version information associated with the connectivity component already  
8 received by the receiving code segment when installation of the connectivity component is  
9 needed; and  
10          the installation code segment causes the computer to install the connectivity  
11 component stored on the client device when the detection code segment determines the  
12 version information associated with the stored connectivity component is correct when  
13 compared against the version information received from the remote server.

1           83.     The computer program of claim 82 wherein:  
2           the receiving code segment causes the computer to receive an updated connectivity  
3 component from the remote server when the detection code segment determines that the  
4 version information associated with the connectivity component stored on the client device is  
5 not correct when compared against the version information received from the remote server;  
6 and  
7           the installation code segment causes the computer to install the updated connectivity  
8 component received from the remote server.

1           84.     The computer program of claim 60 wherein:

2           the detection code segment causes the computer to detect a new hardware device and,  
3     based on detecting the new hardware device, to detect whether a connectivity component has  
4     been received that is needed to enable connectivity between the client device and the host  
5     system using the new hardware device; and

6           the installation code segment causes the computer to install the connectivity  
7     component when the connectivity component is detected to have been received.

1           85.     The computer program of claim 84 wherein:

2           the receiving code segment causes the computer to receive an updated connectivity  
3     component from a remote server when the detection code segment does not detect the  
4     connectivity component that is needed to enable connectivity between the client device and  
5     the host system using the new hardware device; and

6           the installation code segment causes the computer to install the updated connectivity  
7     component received from the remote server.

1           86.     The computer program of claim 60 wherein:

2           the receiving code segment includes a host system receiving code segment that causes  
3     the computer to receive a request to send a connectivity component to a local client device;  
4     and

5           the installation code segment includes a host system installation code segment that  
6     causes the computer to send the connectivity component to the local client device for  
7     installation on the local client device in response to the request.

1           87.     The computer program of claim 86 wherein the host system detection code

2     segment causes the computer to determine a version of the connectivity component to install  
3     on the local client device.